the same class of insects as the spiders, and are not eggs as some have supposed. They occur in numbers from one to a dozen upon a single locust, and suck the life fluid from its body. Placing about one quart of the locusts by themselves in a breeding cage, June fifth, I bred from them, within two weeks, some twenty specimens of parasitic flies belonging to three different species. One of these was the common Flesh-fly (Sarcophaga carnaria), and the other two were of the genus Tachina, the species not yet determined. I have also discovered several specimens of the Spined Soldier-bug (Arma spinosa), each with its jointed beak inserted in a locust of more than double its own size, and not leaving its victim until life was entirely extinguished. The large fly commonly termed the Bee-killer (Asilus), has been seen destroying the locusts in considerable numbers. Spiders have aided in the work of exterminating the pest. Finally, I am able to offer scientific proof that at least seven species of birds feed upon the locusts, having found them in the gizzards of the Red-headed Woodpecker (Melanerpes erythrocephalus), Yellow-billed Cuckoo (Coccyzus Americanus), Cat-bird (Mimus Carolinensis), Red-eyed Vireo (Vireo olivaceus), Great-crested Flycatcher (Myiarchus crinitus), Crow Blackbird (Quiscalus versicolor), and Blue-bird (Sialia sialis).

The preceding account being based entirely upon personal observations of the writer at his own home, it must not be inferred that the ravages of the locusts have been equally severe in the whole State of Kansas. The destruction by these pests for the year 1875 has been confined to a narrow strip on the eastern border of the State. Kansas, as a whole, never had finer promise of bountiful crops than at the present time, and a second planting will undoubtedly repair the damage in the desolated district. The departure of the locusts is taking place more than two weeks earlier than at the time of the first visitation, eight years ago.

Lawrence, Kansas, June 20, 1875.

LARVA AND CHRYSALIS OF THE SAGE SPHINX.

Sphinx lugens Walker (eremitoides Strecker).

By Prof. F. H. Snow, of the University of Kansas.

During the last days of September, 1873, large numbers of caterpillars not observed in former years, were found feeding upon the leaves of the two species of wild sage which grow abundantly in this region. Some of these being transferred to breeding cages, they in a few days entered the ground, and in May and June, 1874, I obtained from them the moth whose name appears at the head of this article. As the larva and chrysalis of this species have been hitherto unknown, I append the following descriptions:

Larva: Length, 3½ inches; diameter of central segments, .56 inch. Head greenish brown with a conspicuous white stripe on each lateral margin of the front, separating it from the brownish black sides of the head. The first three segments are of a light smoky green, thickly sprinkled with minute white dots, and having a dorsal brownish-black longitudinal band which tapers to a point at the front of the second segment, and enlarges to half its former breadth upon the rear of the first segment, tapering again to a nar-

row white-centered line at the front of this segment. This dorsal band is bordered with white on each side and is not continued beyond the third segment. Color of the remaining segments (except the last which is smoky brown with white dots), light green both above and below, with eight transverse rows of minute brownish-black, incomplete annuli upon each segment. Each of these segments has an oblique white lateral stripe extending from the anterior margin of the stigma to nearly the middle of the adjoining segment, becoming obsolete as it reaches the dorsal surface, except the seventh and last stripe, which remains distinct until it reaches the caudal horn. Each of these white stripes has an obscure blackish border on its upper margin. The white stripe is faintly indicated on the anal segment which is inferiorly margined with white. Caudal horn deep brownish black, .37 inch in length. Stigmata yellowish brown encircled with black, bounded inferiorly with an obscure white line. True legs of a smoky color with silvery spots on the inner surface; prop-legs deep smoky brown, lighter on the inside and with the clasping edges black.

Some of the larvae have the smoky brown markings very obscurely indicated, the prevailing color being pale green.

Food Plants: Salvia trichostemmoides Pursh, and Salvia Pitcheri Torrey.

The larva becomes full grown from the first to the fifteenth of October, and forms its chrysalis in the ground at the depth of five to six inches.

Chrysalis: Length, 2.30 inch; breadth, 0.60 inch; color reddish brown, darker at the anal extremity, upon the upper surface and around the stigmata; an olive tinge upon the breast. The tongue case is 1.12 inch long from the end of the loop to the tip, and is strongly arched, being separated from the body 0.22 inch near its base and just touching the breast at its tip.

The imago appears from May fifteenth to June fifteenth.

Lawrence, Kan., Oct. 1, 1875.

CATALOGUE OF THE LEPIDOPTERA OF EASTERN KANSAS.

By Prof. F. H. Snow, of the University of Kansas.

The following preliminary catalogue of the butterflies and moths of Kansas includes no species with which the writer has not made a personal acquaintance. With the exception of twenty of the moths, all the species are represented in the collections of the University of Kansas, having been taken within five miles of Lawrence, in Douglas county, thirty miles west of the Missouri river. In order to make this list of some practical value to our fruit-growers, farmers, and students of natural history, brief descriptions and notes are given, and the food plant of each species is stated when known. From the notes it will be seen that this order of insects is not composed of mere harmless creatures, without claim to attention and study except for their marvelous beauty of ornamentation. Each species has its peculiar food-plant, upon which it feeds with great voracity during the entire period of its existence as a "larva" or caterpillar. In the "imago," or perfect condition, the Lepidoptera feed chiefly upon the nectar of flow-